DT03 Rec'd PCT/PT0 22 NOV-20041 (09-04) U.S. Patent and Transaction Act of 1995. no persons are required to respond to a collection of information unless it displays a valid OMB control number. 10/507,434

TRANSMITTAL	Filing Date	September 14, 2004				
/FORM 🖏	First Named Inventor	Bjorn H. Lindqvist				
( NOV 2 2 2004 %)	Art Unit	1653				
(to be used for all corpspondence after initial f	Examiner Name	Not Yet Known				
Total Number of Pages in The Pages in Total Number of Pages in The Pag	Attaman, Danlart North an	ZNA-PT007				
ENCLOSURES (Check all that apply)						
Fee Transmittal Form	Drawing(s)	After Allowance Communication to TC				
Fee Attached	Licensing-related Papers	Appeal Communication to Board of Appeals and Interferences				
Amendment/Reply	Petition	Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)				
After Final	Petition to Convert to a Provisional Application	Proprietary Information				
Affidavits/declaration(s)	Power of Attorney, Revocation					
	Change of Correspondence Ac Terminal Disclaimer	Other Enclosure(s) (please Identify				
Extension of Time Request		below): Form PTO-1449; Copy of PCT				
Express Abandonment Request	Request for Refund	International Search Report; and				
Information Disclosure Statement	CD, Number of CD(s)	Copies of 19 References Cited				
	Landscape Table on CD	Thereon				
Certified Copy of Priority Document(s)	Remarks	,				
Reply to Missing Parts/						
Incomplete Application Reply to Missing Parts						
under 37 CFR 1.52 or 1.53						
SIGNA	TURE OF APPLICANT, ATTOR	NEY, OR AGENT				
Firm Name VOLPE AND KOENIC	G, P.C.					
Signature Robert (Frol)						
Printed name Robert J. Ballarini						
Date 11 18 04	Re	eg. No. 48,684				
CERTIFICATE OF TRANSMISSION/MAILING						
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:						
Signature Robert Boll						

Application Number

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Typed or printed name

Robert J. Ballarini

Date

04



NOV 2 2 2004 ST

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

## In the **PATENT APPLICATION** of:

Bjørn Lindqvist

**Application No.:** 10/507,434

Confirmation No.: 6406

Filed:

September 14, 2004

For: METHODS FOR PEPTIDE AND PROTEIN DISPLAY IN NUCLEIC ACID

**ARRAYS** 

Group:

1653

Examiner:

Not Yet Known

Our File:

ZNA-PT007

Date: November 18, 2004

## INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Further to Applicant's Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicant wishes to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form.

Pursuant to Pre-Official Gazette Notice signed July 11, 2003 waiving the requirements under 37 C.F.R. § 1.98(a)(2)(i) for applications filed after June 30, 2003, copies of the cited U.S. documents have not been included. Copies of all other cited references are enclosed.

Pursuant to 37 C.F.R. § 1.97(e)(1), the undersigned certifies that items AA, AC and AD contained in this Information Disclosure Statement were cited in an

Application No.: 10/507,434

International Search Report, copy enclosed, in a corresponding International Application.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his consideration of the cited materials.

Respectfully submitted,

By\_\_\_/

Robert J. Ballarini

Registration No. 48,684

(215) 568-6400

Volpe and Koenig, P.C. United Plaza, Suite 1600 30 South 17th Street Philadelphia, PA 19103

RJB/pp Enclosures (19)



Sheet 1 of 3

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. SERIAL NO. 2NA-PT007 10/507,434						
		APPLICANT Bjørn Lindqvist						
NOV 2	2 2004 \$	FORMATION DISCLOSURE  TATEMENT BY APPLICANT  Se several sheets if necessary)		FILING DATE September 14, 2003		GROUI 1653		
& TRAI	DEMARK		U.S. PATEN	T DOCUMENTS	<u> </u>		<del></del>	
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		DATE IF OPRIATE
					<del></del>		_:-:-	
		FC	REIGN PATE	ENT DOCUMENTS				
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	SLATION
	AA	WO 9831700	07/1998	PCT	3300	0000000	123	
	:							
		OTHER ROCHMENTS	(Including A	when Title Date Destinant Des	Ft-)	L		
	AB			et al., "Biochips Comprising Nu	. ,	Protein Co	njugat	es"
	AC	Smith GP, "Filamentous Fusion Phage: Novel Expression Vectors That Display Cloned Antigens on the Virion Surface", Volume 228, 1985, pages 1315-1317						
	AD	Ichiro Tabuchi et al., "An in vitro DNA virus for in vitro protein evolution", FEB Letters, Volume 508, 2001 pages 309-312						
	AE	Cahill, D. Protein arrays: a high-throughput solution for proteomics research? Proteomics: A Trends Guide. (2000) July, 47-51						
		EXAMINER		DATE CO	ONSIDERE	ED		

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

10 Rosid POT/PTO

Sheet 2 of 3

FORM PTO-1449 ATTY, DOCKET NO. SERIAL NO. ZNA-PT007 10/507,434 Ü.S**;∮**EPARTMENT OF COMMERCE **APPLICANT** PARENT AND TRADEMARK OFFICE Biørn Lindavist TE TRADE INFORMATION DISCLOSURE FILING DATE **GROUP** STATEMENT BY APPLICANT September 14, 2003 1653 (Use several sheets if necessary) OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Chattoraj and Inman. Location of DNA Ends in P2, 186, P4 and Lambda Bacteriophage Heads, J. Mol. Biol. ΑF (1974) 87, 11-22. Davis, R.W., Simon, M. and N. Davidson. Electron Microscope Heteroduplex Methods for Mapping Regions of AG Base Sequence Homology in Nucleic Acids. In: Methods in Enzymology, (1971) Vol. 21, Part D, 414-428. DeWildt, R.M., Mundy, C.R., Gorick, B.D. and I.M. Tomlinson. Antibody arrays for high-throughput screening AΗ of antibody-antigen interactions. Nat. Biotechnology (2000) 18 989-994. Dunn, I.S. Assembly of Functional Bacteriophage Lambda Virions Incorporating C-Terminal Peptide or ΑI Protein Fusions with the Major Tail Protein. J. Mol. Biol. (1995) 248, 497-506. Dunn, I.S. Total modification of the bacteriophage lambda tail tube major subunit protein with foreign peptides. AJ Gene (1996) 183, 15-21. AK Irving, R.A. and P. Hudson. Proteins emerge from disarray. Nat. Biotechnology (2000) 18, 932-933. Lindqvist, B.H. and S. Naderi. Peptide presentation by bacteriophage P4. FEMS Microbiol. Rev. (1995) 17, AL 33-39. MacBeath, G. and S.L. Schreiber. Printing Proteins as Microarrays for High-Throughput Function AM Determination. Science (2000) 289, 1760-1763. Maruyama I.N., Maruyama H.I., and S. Brenner. Lambda foo: A Lambda phage vector for the expression of ΑN foreign proteins. Proc Natl Acad Sci USA (1994) Aug. 16; 91 (17): 8273-7. Mikawa, Y.G., Maruyama I.N., and S. Brenner. Surface Display of Proteins on Bacteriophage Lambda Heads. AO J. Mol. Biol. (1996) 262, 21-30. AP Mitchell, P. A perspective on protein microarrays. Nature Biotechnol. (2002) 20, 225-229. Roberts, R.W. and J.W. Szostak. RNA-peptide fusions for the in vitro selection of peptides and proteins. Proc AQ Natl Acad Sci USA, 1997 Nov 11; 94(23): 12297-302. DATE CONSIDERED **EXAMINER** 

## 10 Ros 4 POINTIO 2 2 NOV 2004







-00 Z				Sheet 3 of 3	
DRINGUE DE		FORM PTO-1449	ATTY. DOCKET NO. ZNA-PT007	SERIAL NO. 10/507,434	
DEMA	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Bjørn Lindqvist		
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE September 14, 2003	GROUP 1653	
	(Use several sheets if necessary)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		OTHER DOCUMENTS (Including Au	uthor, Title, Date, Pertinent Pages	s, Etc.)	
	AR	Sternberg, N. and R. H. Hoess. Display of Proc. Nat. Aca	peptides and proteins on the sur d. Sci (USA) (1995) 28, 1609-16	face of bacteriophage Lambda. 13.	
	AS	Thomas, J.O. Chemical Linkage of the Tail to the Right-hand End of Bacteriophage Lambdo DNA. J. Mol. Biol. (1974) 87, 1-9.			
		·	<u> </u>		
				···	
<b></b> _					

EXAMINER	DATE CONSIDERED